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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,342	06/16/2005	Shahram Mihan	8019.101	7357

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EXAMINER	
LEE, RIP A	
ART UNIT	**PAPER NUMBER**
1713	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/539,342	MIHAN ET AL.	
	Examiner	Art Unit	
	Rip A. Lee	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-15* is/are rejected.

7)☒ Claim(s) *12-15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action follows a response filed on November 6, 2006. Claims 1-11 were canceled and new claims 14 and 15 were added. Claims 12-15 are pending.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 12 and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12 and 13 of copending Application No. 10/539,242. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application are generic to, *i.e.*, fully encompass, the claims of the copending application, and therefore, the claims of the instant application are anticipated by the claims of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Objections

3. Claim 12 is objected to because of the following informalities:

Page 1, line 8	insert "or" between "$OSiR^{6A}_3$," and "SiR^{6A}_3"
Page 1, line 14	insert "selected" between "atom" and "from"
Page 1, line 17	insert "or" between "C_6-C_{20}-aryl," and "alkylaryl"
Page 2, line 8	delete "geminal or"
Page 2, line 9	delete "vicinal"
Page 3, line 1	replace "R^{2B}" with "R^{4B}"

4. Claims 13 is objected to because of the following informalities: The structure corresponding to formula (VIIa) is incorrect.

5. Claim 13 is objected to because of the following informalities:

Page 3, line 12	insert "or" between "$OSiR^{6A}_3$," and "SiR^{6A}_3"
Page 4, line 5	insert "selected" between "atom" and "from"
Page 4, line 8	insert "or" between "C_6-C_{20}-aryl," and "alkylaryl"

6. Claim 14 is objected to because of the following informalities:

Page 5, line 8	insert "or" between "$OSiR^{6A}_3$," and "SiR^{6A}_3"
Page 5, line 14	insert "selected" between "atom" and "from"
Page 5, line 17	insert "or" between "C_6-C_{20}-aryl," and "alkylaryl"
Page 6, line 10	delete "geminal or"
Page 6, line 11	delete "vicinal"

7. Claim 15 is objected to because of the following informalities: The structure corresponding to formula (VIIa) is incorrect.

8. Claims 15 is objected to because of the following informalities:

Page 7, line 5	insert "or" between "$OSiR^{6A}_3$," and "SiR^{6A}_3"
Page 7, line 11	insert "selected" between "atom" and "from"
Page 7, line 14	insert "or" between "C_6-C_{20}-aryl," and "alkylaryl"

Appropriate correction is required for all claim objections.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang (U.S. 6,723,675).

Wang discloses lithium 5-[(2-pyridyl)methyl]tetramethylcyclopentadienide anion (col. 11, lines 9-28) from the corresponding conjugated cyclopentadienide precursor (col. 11, lines 13-16). Both the anion and precursor have structures that satisfy the structural requisites of the instant claims.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mihan *et al.* (WO 01/12641 ; same as U.S. 6,919,412).

Mihan *et al.* teaches ligand anion (II) in claim 1. One notes that the π-ligand has bridging group B and pendant moiety Z. The bridging group is of formula $L^2(R^{13})(R^{14})$ where L^2 is carbon or silicon. Z is a heterocyclic moiety, and page 8 shows that this is a 2-pyridyl or 8-quinolyl group, and substituted derivatives thereof (page 8, lines 45-47). Surprisingly, the examples of Mihan *et al.* do not show a single organometallic complex containing the requisite bridging group $L^2(R^{13})(R^{14})$, as disclosed in the body of the patent. There is disclosed the complexes (8-quinolinyl)(Ind)$CrCl_2$ and (2-Me-8-quinolinyl)$(Me_4C_5)CrCl_2$, which contain ligand anions [(8-quinolinyl)(Ind)] and [(2-Me-8-quinolinyl)(Me_4C_5)], in examples 8 and 10, where the quinolinyl moiety is bound directly to the Cp ligand, but no bridging group exists in either complex (see experimental and supporting ^{1}H NMR data). Despite this, one of ordinary skill in the art would have found it obvious to follow the teachings of the disclosure and claims and make the corresponding bridged derivatives of these compounds because this is the actual scope of the disclosure of the patent. Therefore, one of ordinary skill in the art would have found it

obvious to make ligand anions [$L^2(R^{13})(R^{14})$](8-quinolinyl)(Ind)] and [$L^2(R^{13})(R^{14})$](2-Me-8-quinolinyl)(Cp)] and thereby arrive at the catalyst of the instant claims.

Response to Arguments

14. The rejections of claims set forth in the previous office action have been withdrawn since the prior art does not apply to the present claims. The subject matter of claims 12 and 13 is not taught or rendered obvious in the prior art cited to date. The status of claim 12 is consistent with that described in paragraph 10 of the previous office action. The claim remained, and currently remains, provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over copending Application No. 10/539,242.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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January 11, 2007

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